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FIGURE 1A

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```

FIGURE 1B

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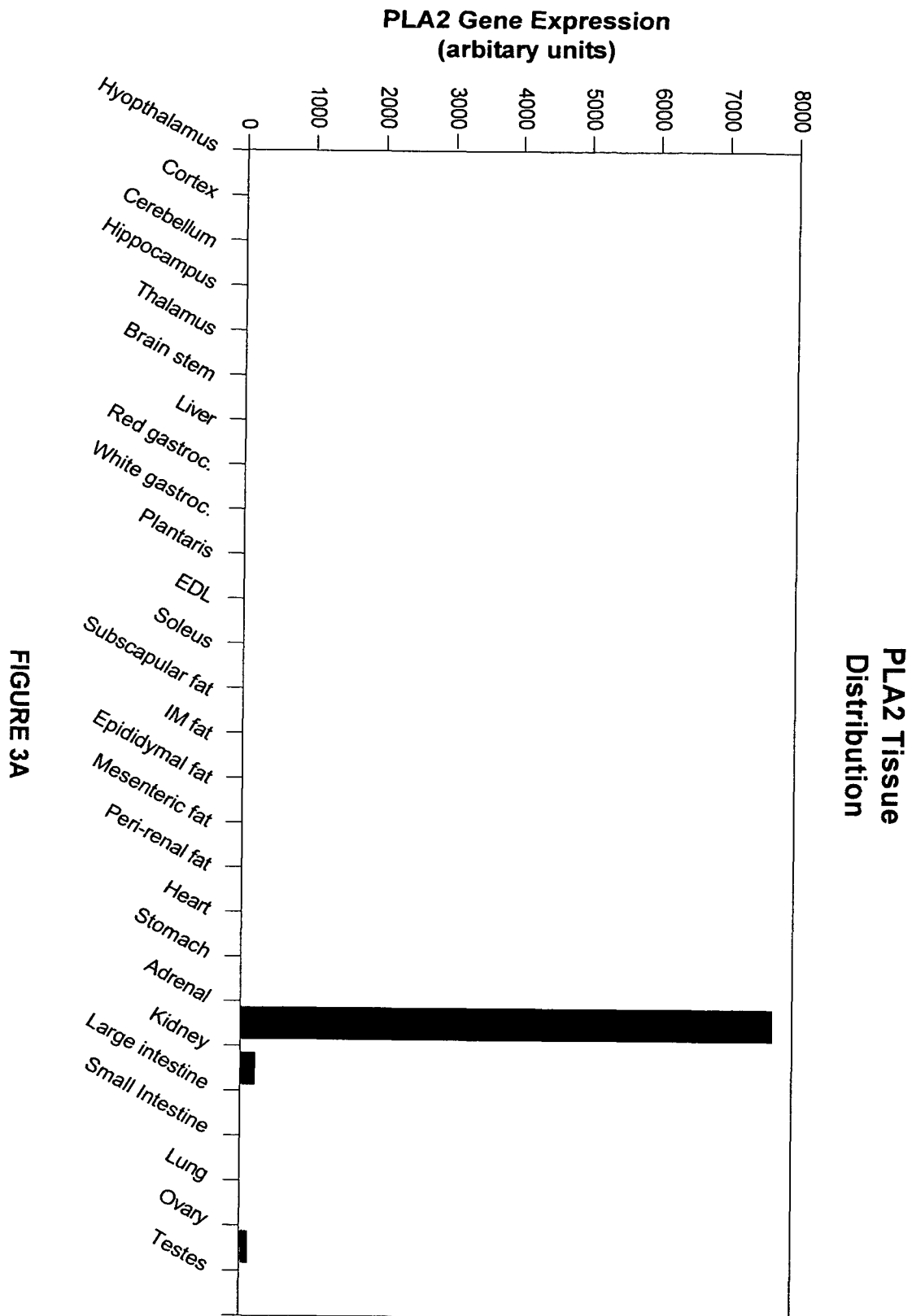
FIGURE 1C

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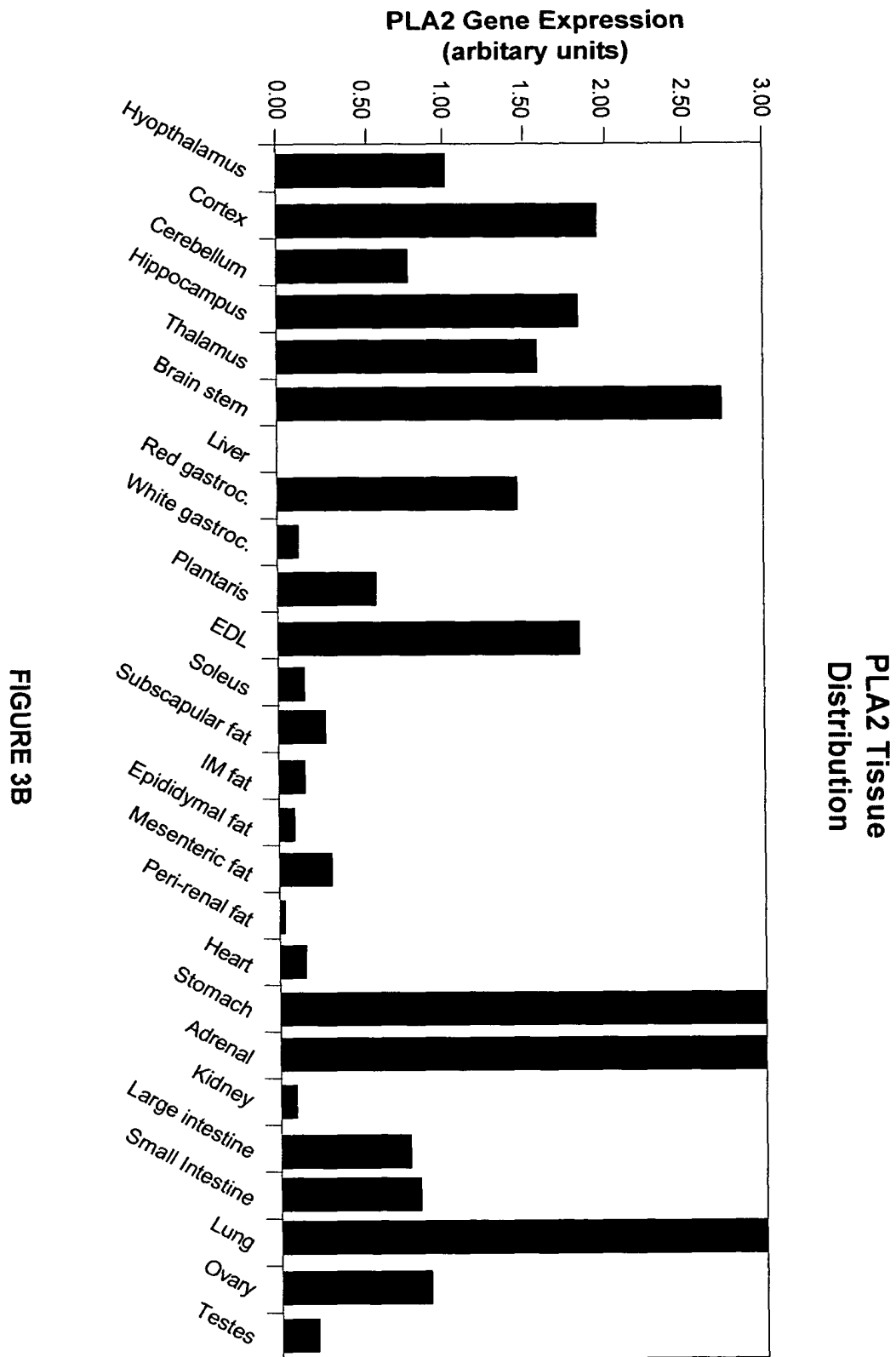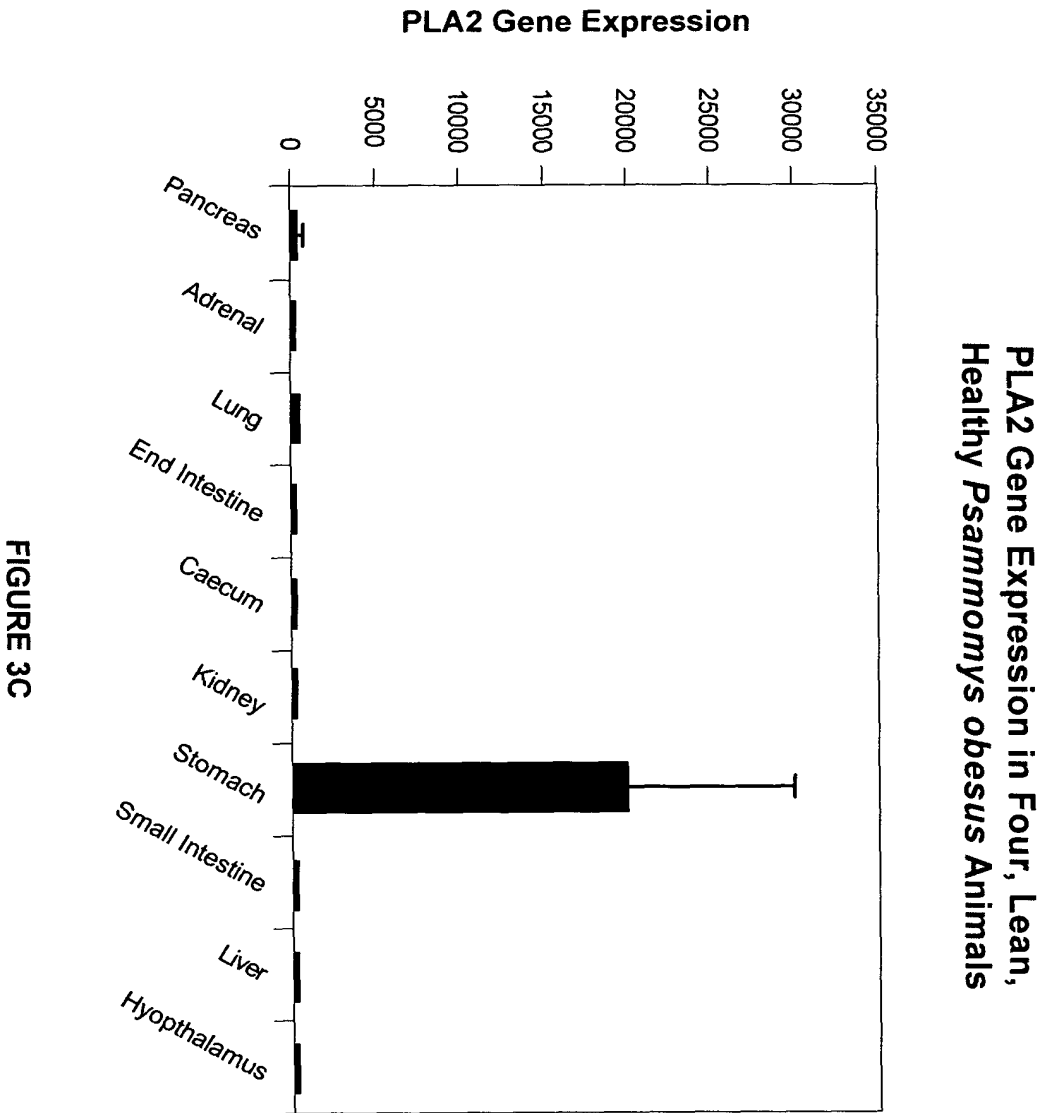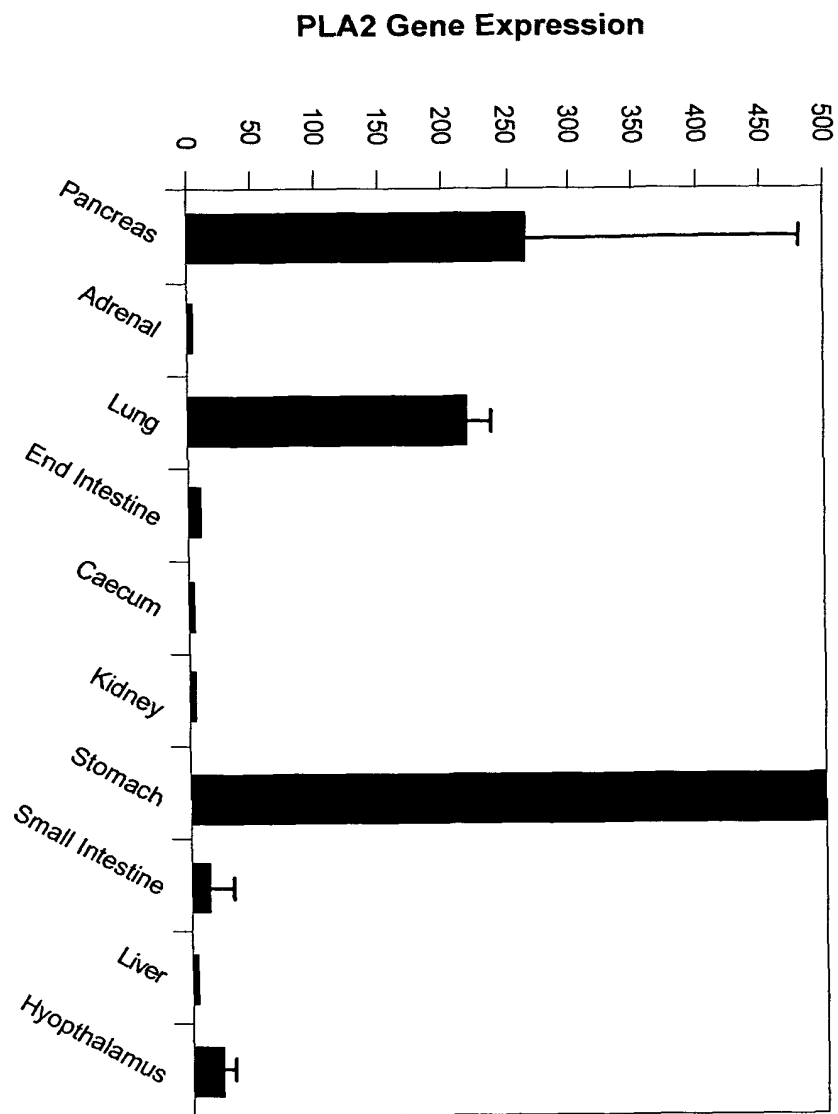
FIGURE 1D

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FIGURE 2

PLA2 Gene Expression
(arbitary units)

PLA2 Tissue Distribution

FIGURE 3A

PLA2 Gene Expression (arbitary units)

PLA2 Tissue Distribution

FIGURE 3B

FIGURE 3C

PLA2 Gene Expression in Four, Lean,
Healthy *Psammomys obesus* Animals

PLA2 Gene Expression in Four, Lean, Healthy *Psammomys obesus* Animals

FIGURE 3D
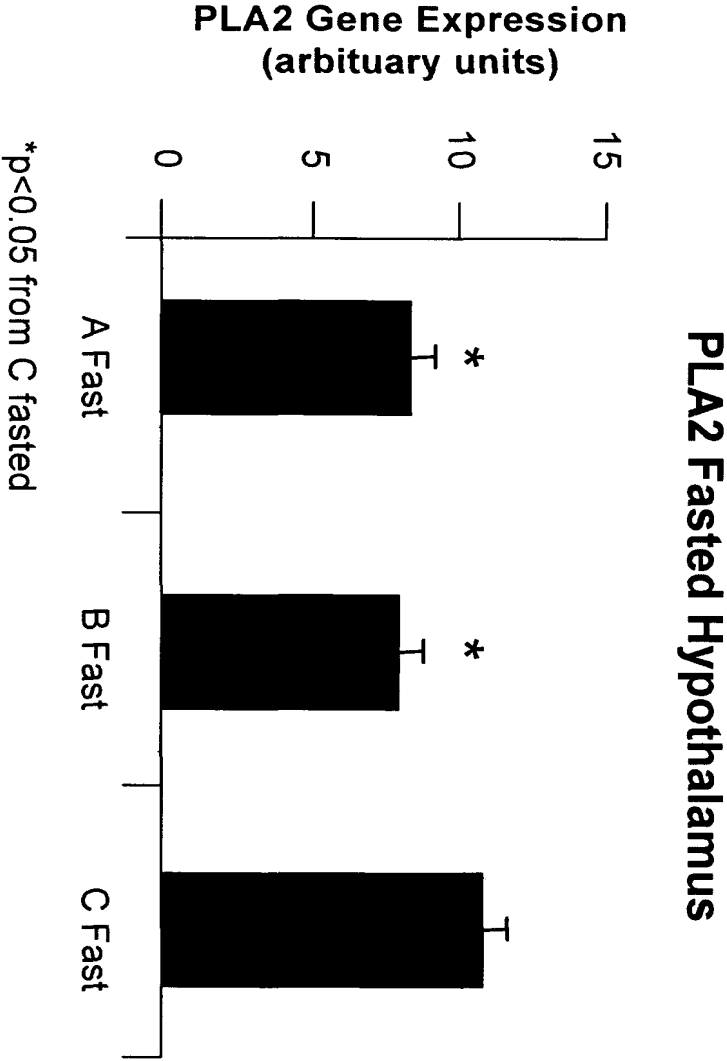
FIGURE 4A

FIGURE 4B

GENE EXPRESSION

PLA2 v BW (Fasted animals)

p=0.028

$y = 0.0325x + 1.5499$
$R^2 = 0.219$
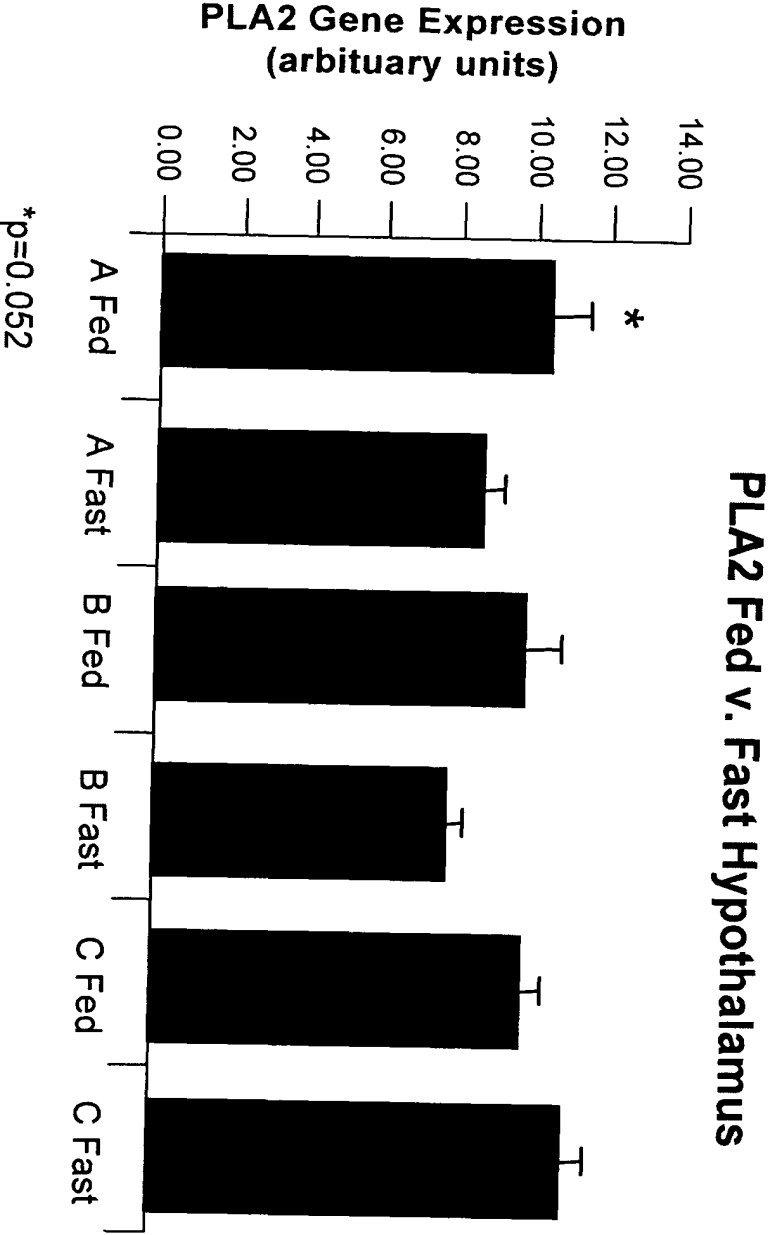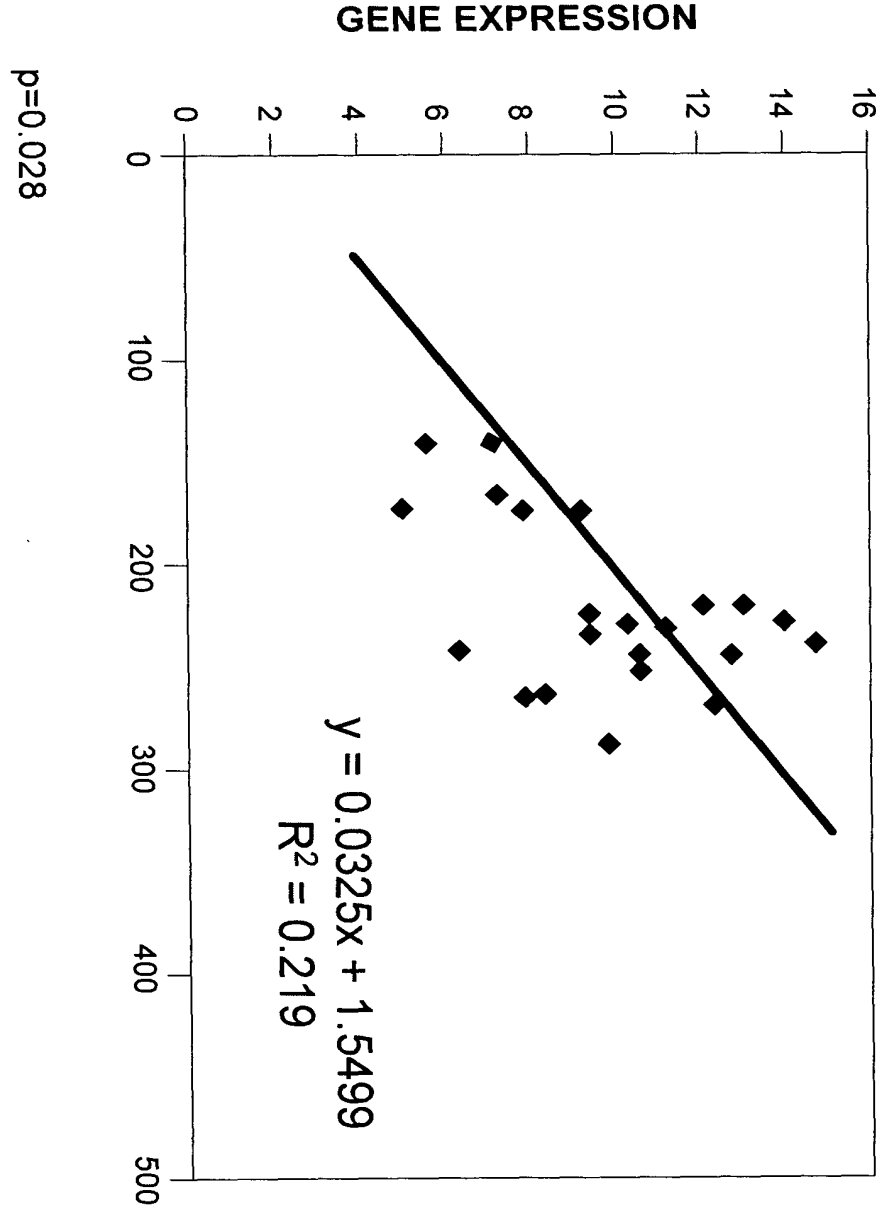
FIGURE 4C

PLA2 v Insulin (Fasted animals)

$y = 0.0242x + 7.2564$

$R^2 = 0.2764$

p=0.014
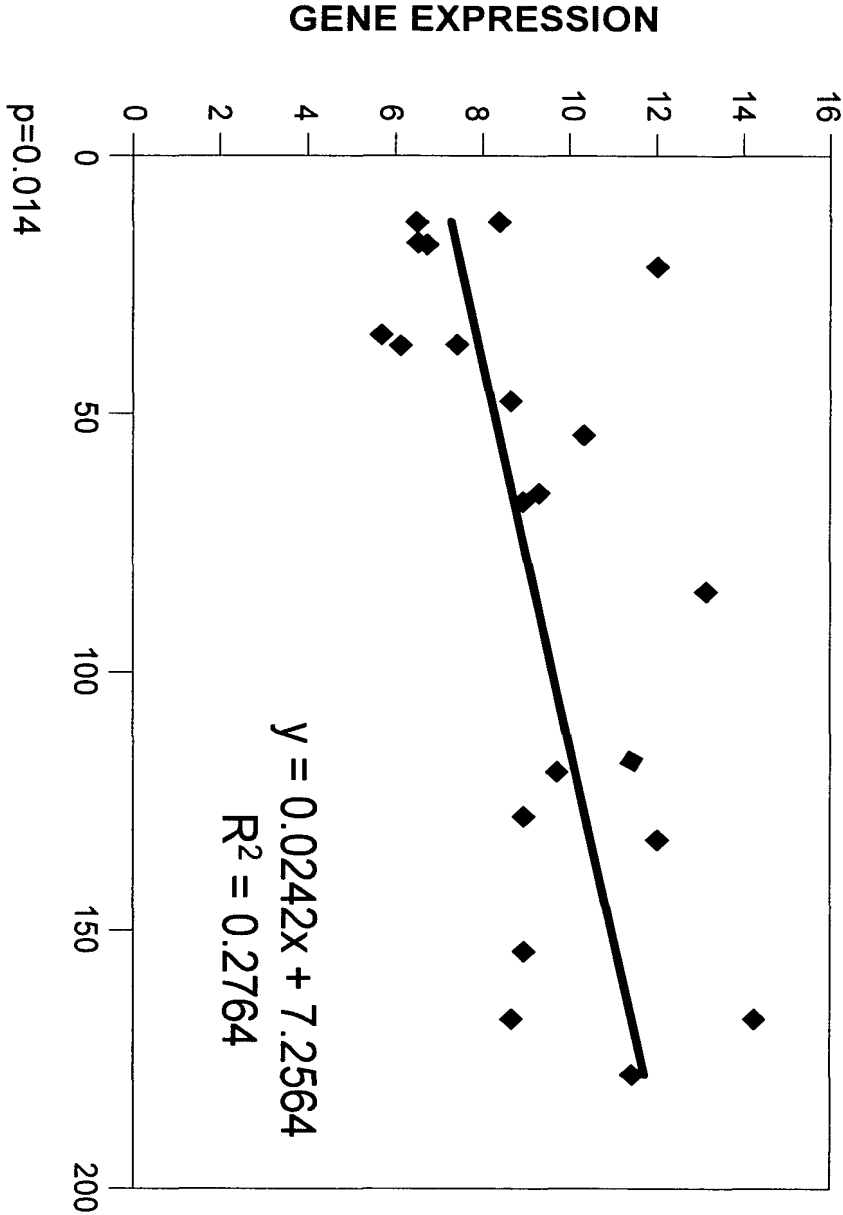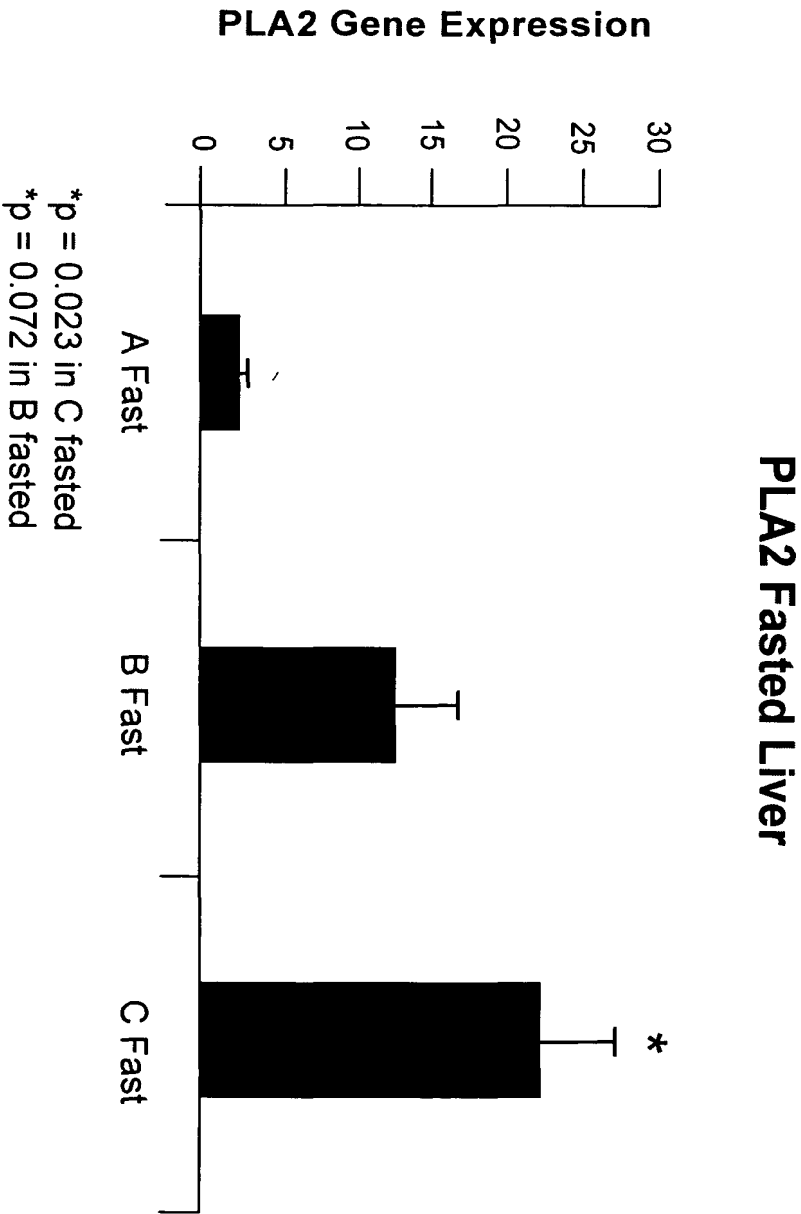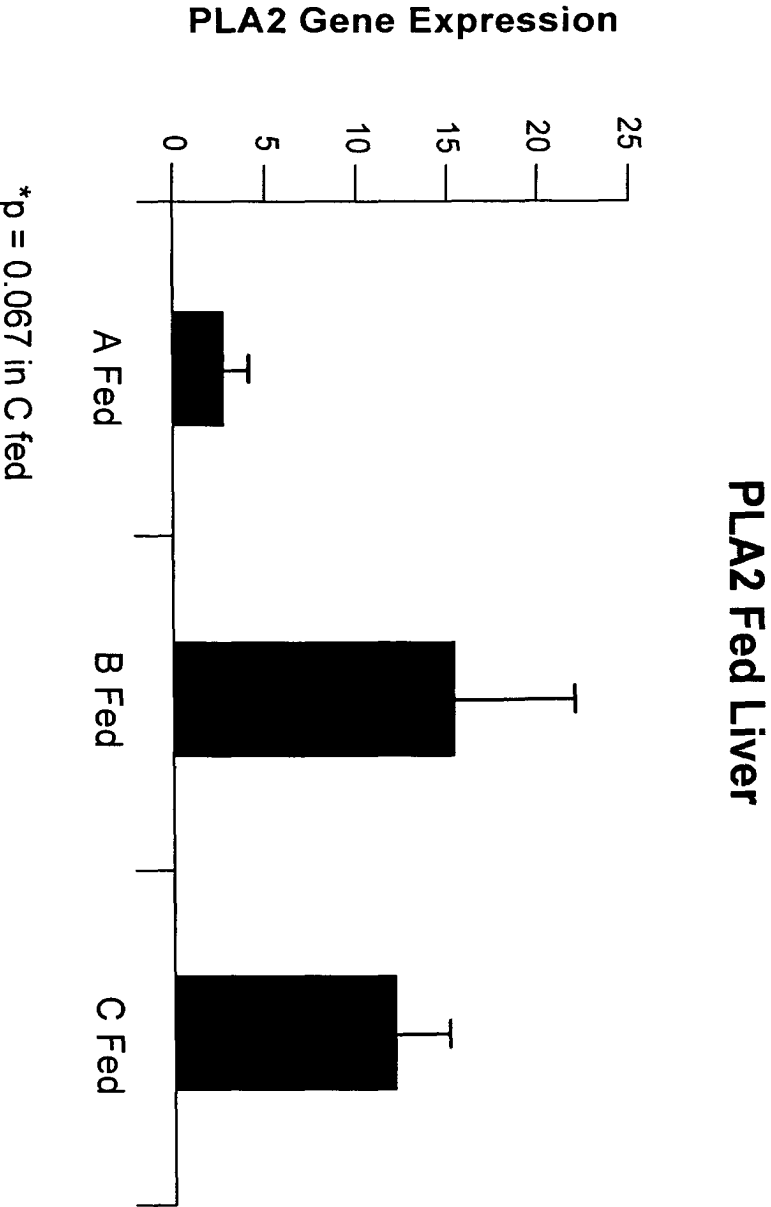
FIGURE 4D

FIGURE 4E

FIGURE 4F

PLA2 v Weight - Fasted animals

$y = 0.2707x - 47.459$

$R^2 = 0.3681$

GENE EXPRESSION

p=0.005

FIGURE 4G

PLA2 v Insulin Fasted Animals

$y = 0.0868x + 3.0103$
$R^2 = 0.2709$

$p < 0.02$
$p = 0.013$

FIGURE 4H

PLA2 v Insulin Fasted Animals

Gene Expression

$y = 1.2249x + 6.3801$
$R^2 = 0.0699$

p = 0.023
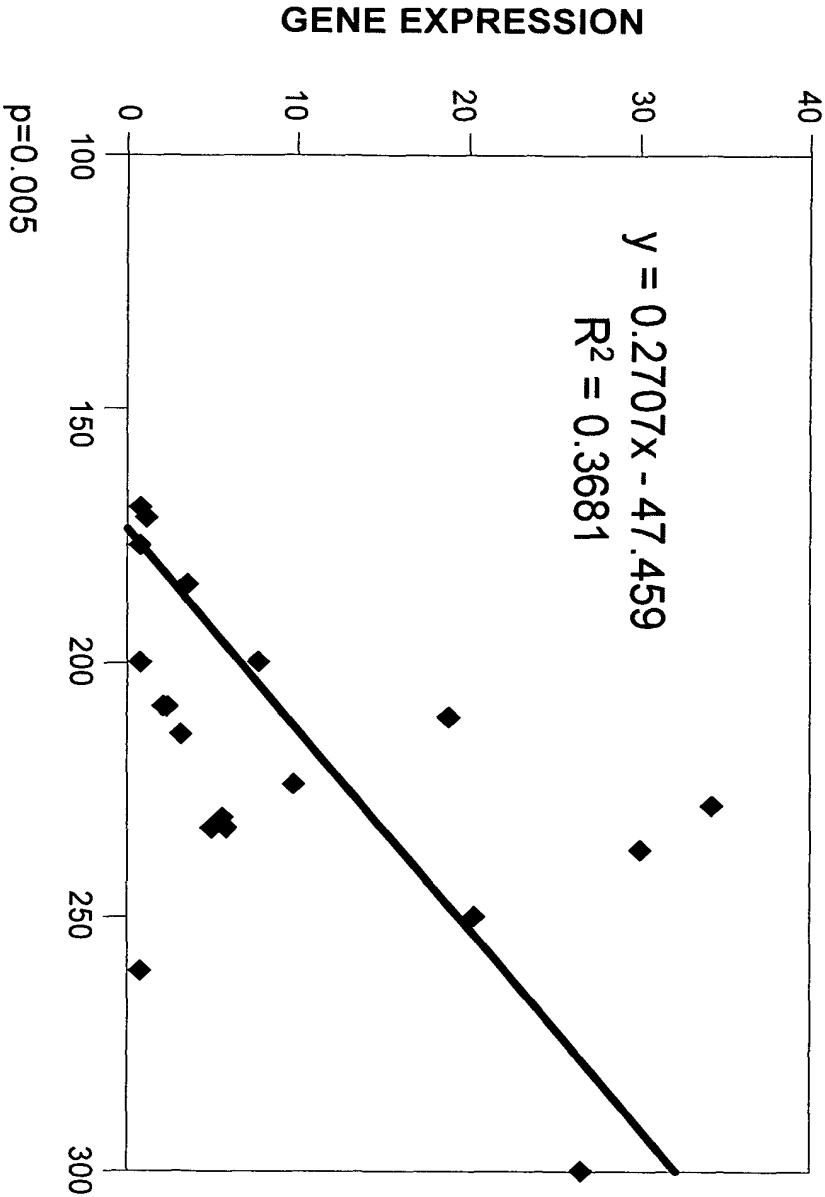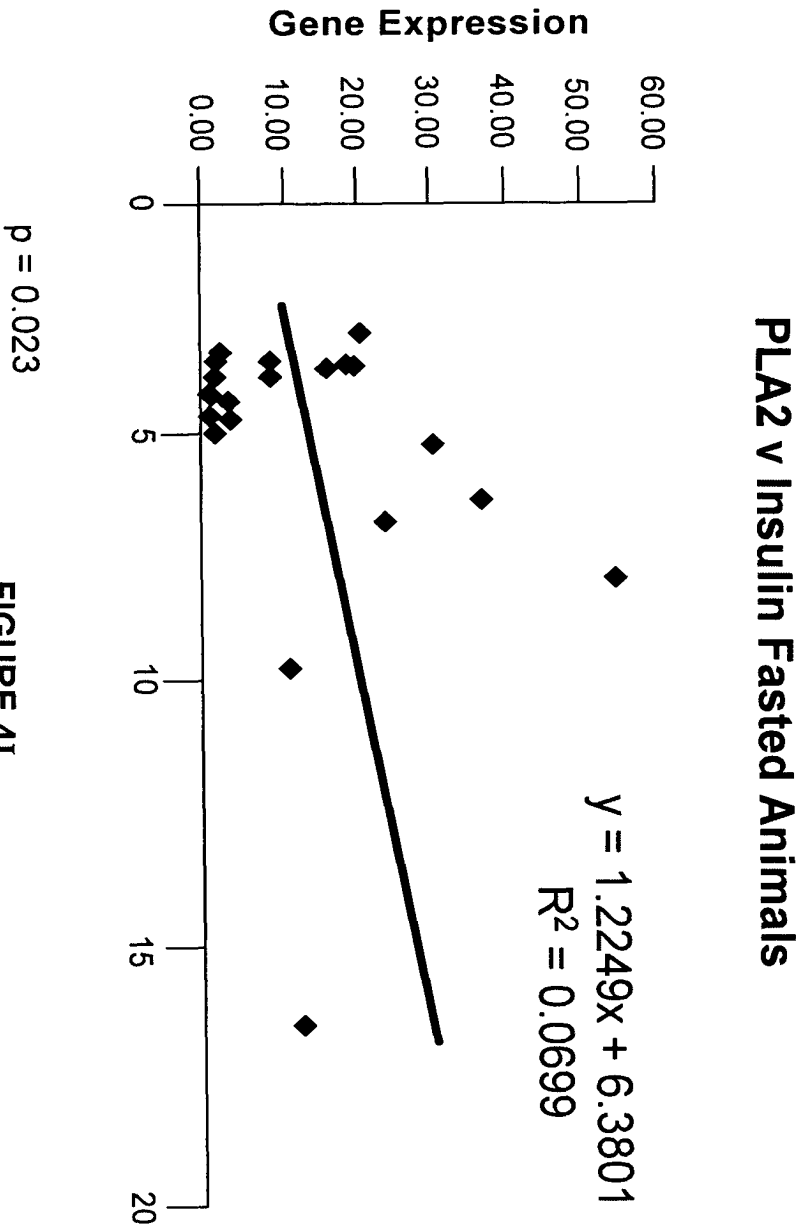
FIGURE 4I

PLA2 v Weight - Fed Animals

Gene Expression

$y = 0.02173x - 37.446$

$R^2 = 0.2708$

$p = 0.013$

FIGURE 4J

PLA2 Pancreas - All groups

FIGURE 4K

PLA2 Gene Expression

PLA2 Fed v. Fasted Scapular Fat

Fed

Fasted

*p = 0.038

FIGURE 4L

```
Human       TGGTCATCTCAGTTTCTTTTCTCACCTTGACTGCAAGATGAAACTCCTTGTGCTAGCTGT 60
Mouse       ----------------CTCCCCTCACTCCTTCTGAAGATGAAACTCCTTCTGCTGGCTGC 44
Rat         -------------------------CCCTCGCCAAGATGAAACTCCTTCTGCTGGCTGC 34
Psammomys          ------------------------------------------------------


Human       GCTGCTCACAGTGGCCGCCGCCGACAGCGGCATCAGCCCTCGGGCCGTGTGGCAGTTCCG 120
Mouse       TCTGCTCACAGCAGGCGCTGCTGCACACAGCATCAGCCCTCGGGCTGTGTGGCAGTTCCG 104
Rat         TTTGCTCACAGCAGGCGTTACTGCACACAGCATCAGCACTCGGGCTGTGTGGCAGTTCCG 94
Psammomys   -----------------------------------------------------TGTTCCG 7
                                                                 ******

Human       CAAAATGATCAAGTGCGTGATCCCGGGGAGTGACCCCTTCTTGGAATACAACAACTACGG 180
Mouse       CAATATGATCAAGTGCACCATCCCCGGGAGTGATCCCCTGAAGGATTACAACAACTATGG 164
Rat         CAATATGATCAAGTGCACCATCCCCGGGAGTGATCCCCTGAGGGAGTACAACAACTACGG 154
Psammomys   CAATATGATCAAGTGCGCCATCCCCGGAAGTAAGCCCCTGAAGGAGTACAACAACTACGG 67
            *** ** *********      ***** **  *** *  *** *     ***  ********** **

Human       CTGCTACTGTGGCTTGGGGGGCTCAGGCACCCCGTGGATGAACTGGACAAGTGCTGCCA 240
Mouse       CTGCTACTGTGGCTTGGGGCGGCTGGGGCACCCCAGTGGACGACTTAGACAGGTGCTGCCA 224
Rat         CTGCTACTGTGGCTTGGGGCGGCTCAGGCACCCCAGTGGACGACTTAGACAGGTGCTGCCA 214
Psammomys   CTGCTACTGCGGCCTGGGCGGCGCAGGCACCCCAGTGGACGAATTAGACAGGTGCTGCCA 127
            *********  ***  ****  ***      *******  ****  **   * ****  ********

Human       GACACATGACAACTGCTATGACCAGGCCAAGAAGCTGGACAGCTGTAAATTTCTGCTGGA 300
Mouse       GACTCATGACCACTGCTACAGTCAGGCCAAGAAGCTGGAAAGCTGTAAATTCCTCATAGA 284
Rat         GACTCATGACCACTGCTACAATCAGGCCAAGAAGCTGGAAAGCTGTAAATTCCTCATCGA 274
Psammomys   GATCCATGACAATTGCTACACTAAGGCCAAGAGGCTGAAAAGCTGTAAATCCCTCCTGGA 187
            **    ****** *  *****         ********* **** * ********* **  *  **

Human       CAACCCGTACACCCACACCTATTCATACTCGTGCTCTGGCTCGGCAATCACCTGTAGCAG 360
Mouse       CAACCCCTACACCAACACTTACTCCTACTCATGCTCCGGGAGCGAGATCACCTGCAGCGC 344
Rat         CAACCCCTACACCAACACGTACTCATACAAGTGCTCCGGGAACGTGATCACCTGCAGCGA 334
Psammomys   CAACCCCTACACCCACTCATACTCGTACAAGTGCTCCGGGAATGAGATCATCTGTAGTGA 247
            ****** ****** **  *  **  ** ***     ***** **    *  ****  *** **

Human       CAAAAACAAAGAGTGTGAGGCCTTCATTTGCAACTGCGACCGCAACGCTGCCATCTGCTT 420
Mouse       CAAAAACAACAAATGCGAGGACTTCATCTGCAACTGTGACCGTGAGGCCGCCATCTGCTT 404
Rat         CAAAAACAACGACTGTGAGAGCTTCATCTGCAACTGTGACCGGCAGGCCGCCATCTGTTT 394
Psammomys   CAAAAACAAGGAATGCGAGGCNTTCATCTGCAACTGTGACCG----------------- 289
            *********   *  ** ***     *****  ********* *****
```
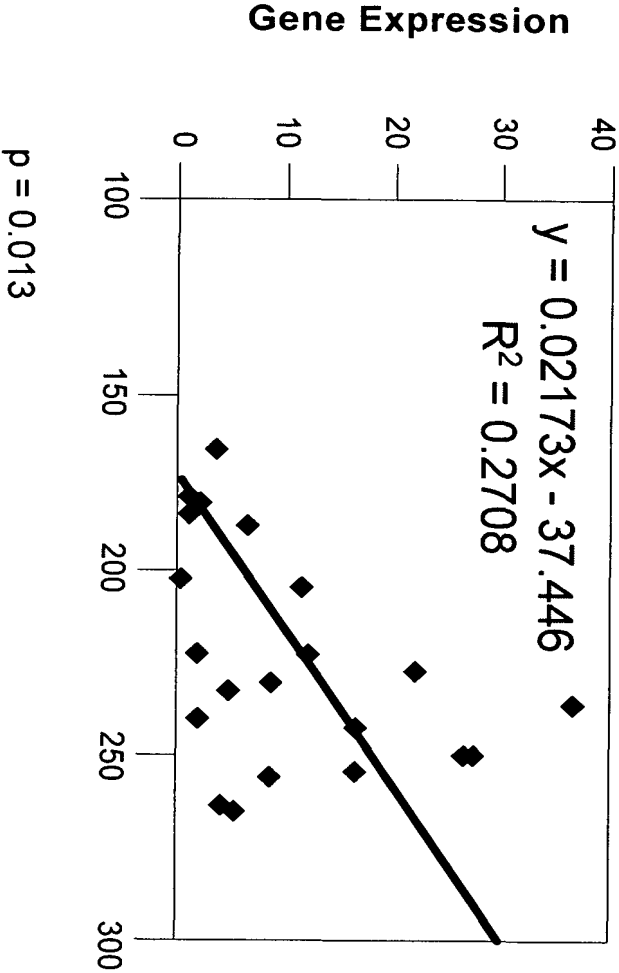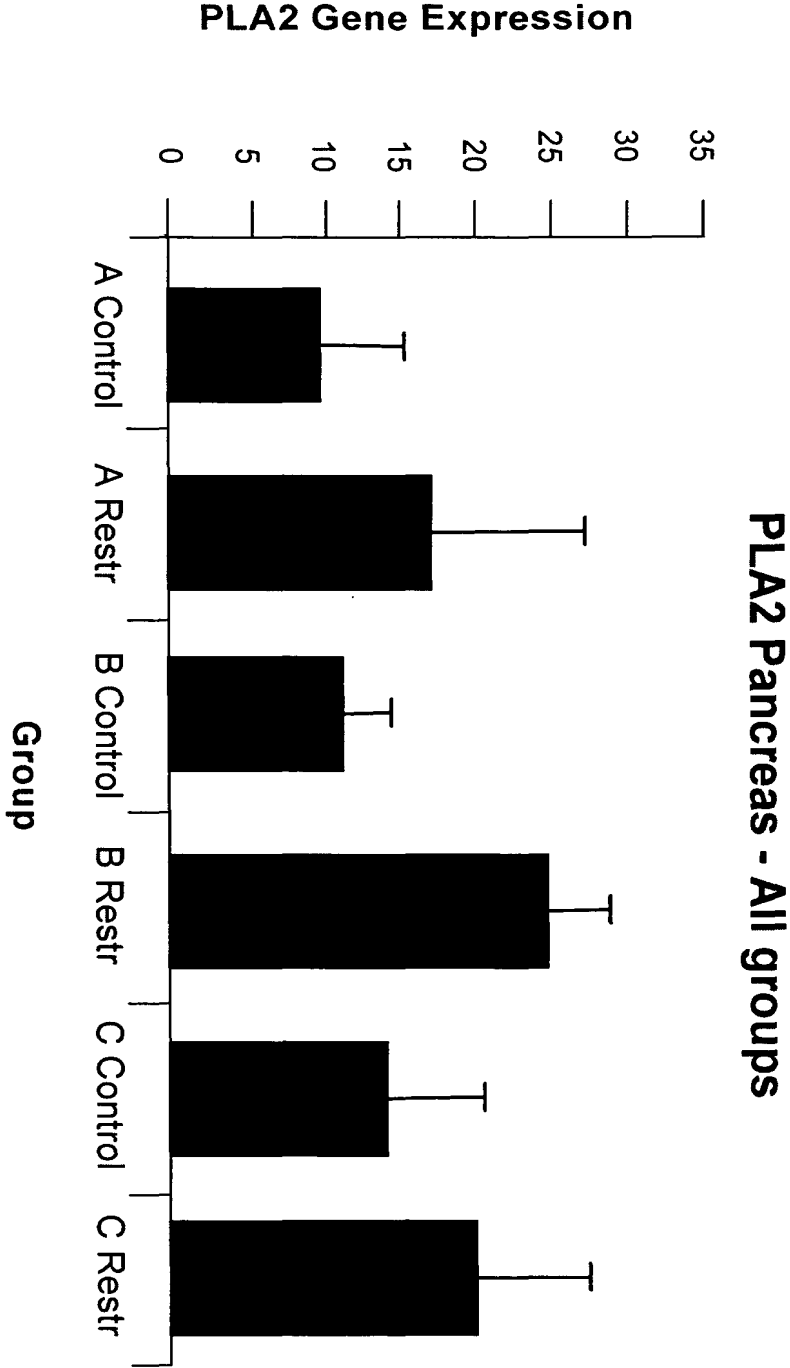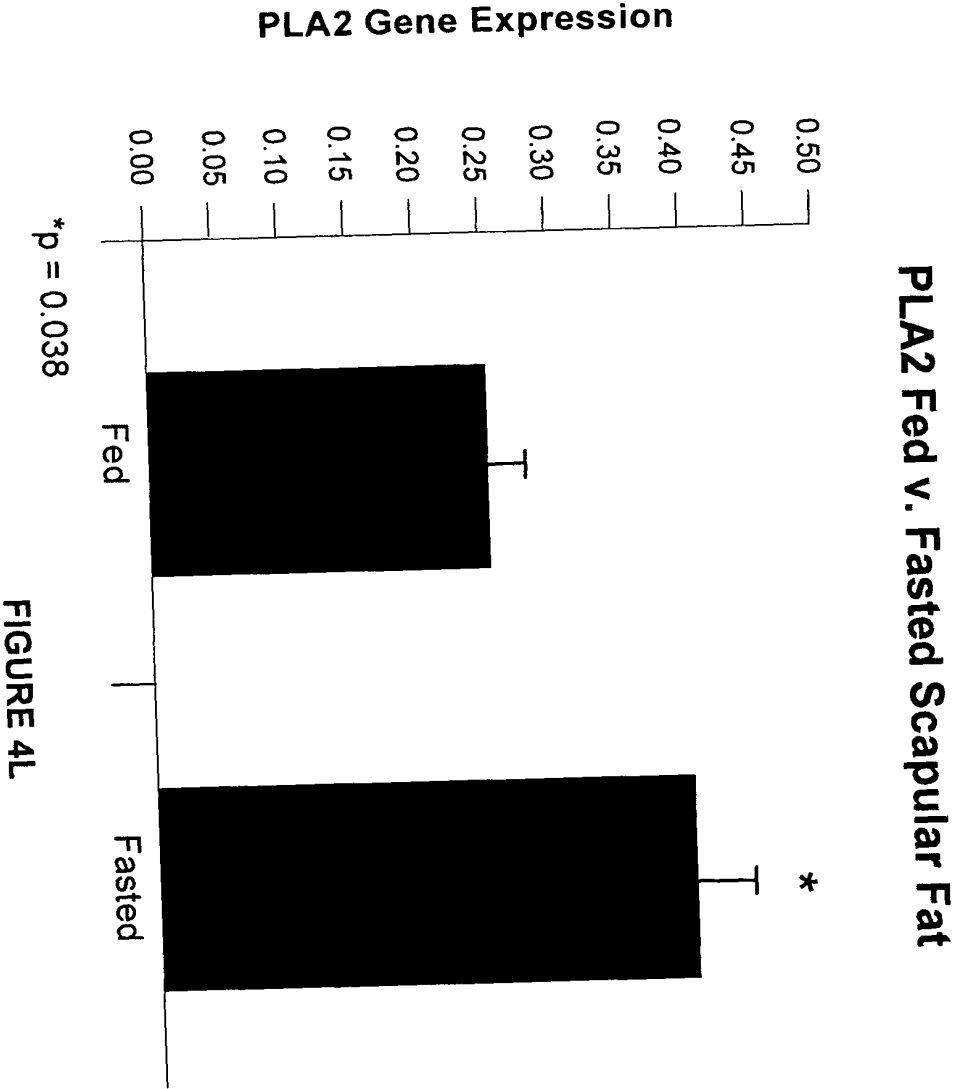
```
Human       TTCAAAAGCTCCATATAACAAGGCACACAAGAACCTGGACACCAAGAAGTATTGTCAGAG 480
Mouse       CTCCAAGGTCCCGTACAACAAGGAATACAAAAACCTTGACACCGGGAAATTCTGTTAGCC 464
Rat         CTCCAAGGTCCCCTACAACAAGGAATACAAAGACCTTGACACCAAGAAACACTGTTAGGC 454
Psammomys   ------------------------------------------------------------


Human       TTGAATATCACCTCTCAAAAGCATCACCTCTAT-------CTGCCTCATCTC-ACACTG 531
Mouse       TGTCACCTCACTTCCTGCCCACGCCGACCCCGCCCACCTTGCTGTCTTATTTC-ACCCTG 523
Rat         TGTCACCCCACTTCCTGTCTATGCCGTCCCCGCTCCCCTTGCTGTCTTATTTCTGCACCG 514
Psammomys   ------------------------------------------------------------


Human       TACTCTCCAATAAAGCACCTTGTTGAAAGAA 562
Mouse       CGCCCTCTAATAAAGTACCT-GCTGTCAGA- 552
Rat         CACCCTCTAATAAAGTACCA-GCAGAAAG-- 542
Psammomys   ------------------------------
```

FIGURE 5A

```
Human        MKLLVLAVLLTVAAADSGISPRAVWQFRKMIKCVIPGSDPFLEYNNYGCYCGLGGSGTPV  60
Mouse        MKLLLLAALLTAGAAAHSISPRAVWQFRNMIKCTIPGSDPLKDYNNYGCYCGLGGWGTPV  60
Rat          MKLLLLAALLTAGVTAHSISTRAVWQFRNMIKCTIPGSDPLREYNNYGCYCGLGGSGTPV  60
Psammomys    MKLLLLAALLTAGVGAHSISTRAVWQFGNMIKCAIPGSKPLKEYNNYGCYCGLGGAGTPV  60
             ****:**.***...     **.*******:****.****.*: :************ ****


Human        DELDKCCQTHDNCYDQAKKLDSCKFLLDNPYTHTYSYSCSGSAITCSSKNKECEAFICNC  120
Mouse        DDLDRCCQTHDHCYSQAKKLESCKFLIDNPYTNTYSYSCSGSEITCSAKNNKCEDFICNC  120
Rat          DDLDRCCQTHDHCYNQAKKLESCKFLIDNPYTNTYSYKCSGNVITCSDKNNDCESFICNC  120
Psammomys    DELDRCCQIHDNCYTKAKRLKSCKSLLDNPYTHSYSYKCSGNEIICSDKNKECEAFICNC  120
             *:**:*** **:** :**:*.*** *:*****::***.***. * ** **:.** *****


Human        DRNAAICFSKAPYNKAHKNLDTKKYCQS  148
Mouse        DREAAICFSKVPYNKEYKNLDTGKFC--  146
Rat          DRQAAICFSKVPYNKEYKDLDTKKHC--  146
Psammomys    DRAAAICFSKAPYNKQDKNLNTKKNC--  146
             ** *******.****  *.*:*:* *
```

FIGURE 5B